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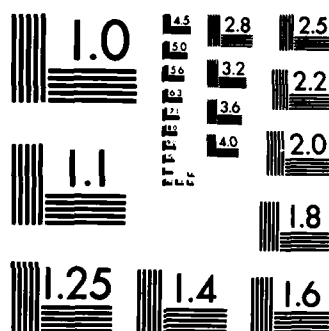
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ARCHAEOLOGICAL RECONNAISSANCES

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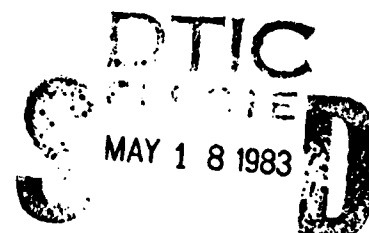
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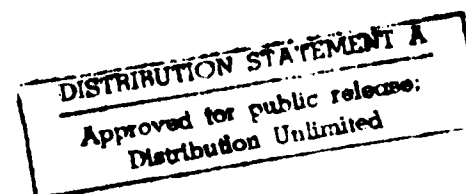
U. S. ARMY ENGINEER DISTRICT, HONOLULU
Contract No. DACW84-81-M-0375



Prepared by:

William Barrera, Jr.

CHINIAGO INC.
76 North King Street
Honolulu, Hawaii 96717



JUNE 1981

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I. INTRODUCTION

Archaeological reconnaissance surveys, historical literature searches and informant interviews to determine the nature of archaeological and historical remains that might be impacted by proposed small boat harbor construction were conducted at Kalapana and Leleiwi Point, Hawaii Island [Figure 1]. The results of these investigations are to be used in the planning and designing of the intended facilities, as well as in the environmental and cultural impact analyses being prepared by the Corps of Engineers. This report is therefore intended to comply with the Reservoir Salvage Act of 1960, as amended, the National Historic Preservation Act of 1980, the Advisory Council on Historic Preservation's 36 CFR Part 800 and the U.S. Army Corps of Engineers 33 CFR Part 305.

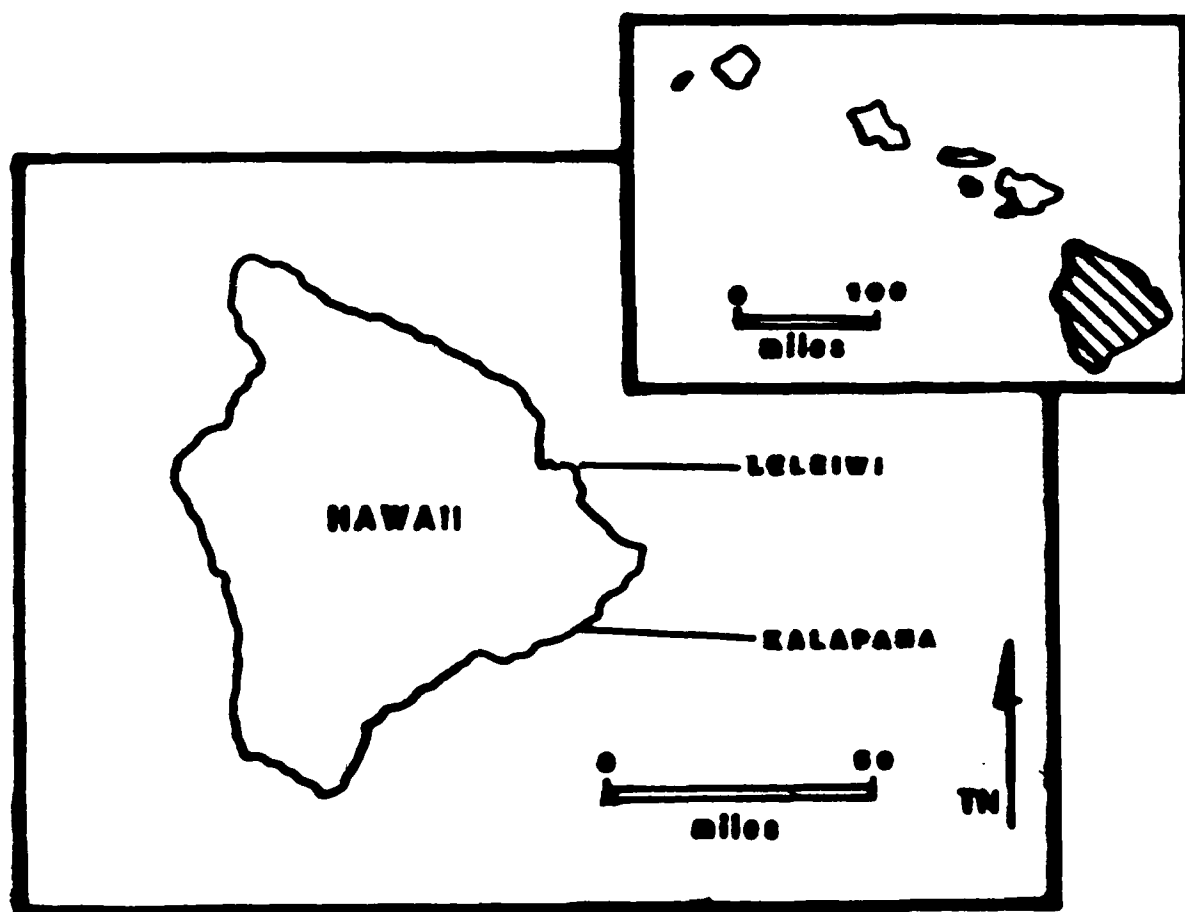


Figure 1. Map of Hawaii, Showing Locations of Survey Areas.

II. CULTURAL BACKGROUND

A. KALAPANA

Alfred Hudson in his unpublished 1932 manuscript on the archaeology of east Hawaii describes a heiau known as Kikoa at Kalapana:

"Although the site is small it is of interest because it consists of two distinct platforms connected by a wall and terrace across their seaward ends. In this duplex nature it resembles Waiaka heiau at Kupaahu.

"In their present condition both platforms are roughly triangular in ground plan but it is possible that the missing corners may have been built up because much of the original stone work has been removed for walls. Both are built of large lava blocks from the bluff.

"The west platform is the better preserved and today is the larger. Its west side is 66 feet long and the south side 45 feet. The north and east sides form a curved wall 85 feet long.

"Of the east platform 52 feet of the west wall and 20 feet of the south can be measured. Undoubtedly they were once longer but it is impossible to say how much. Nothing remains of the other side or sides.

"Apparently a continuous terrace at one time extended across the seaward front of both platforms thus forming a unified but duplex structure. In addition to this terrace a wall 30 feet long joins the tops of the two platforms. It is sufficiently wide to walk on and may have been paved to form a runway between the two units.

"At the best preserved points the tops of the platforms are 8 feet above the surrounding ground level. Two small pools of brackish water adjoin the site.

"This place is noted among the people of Kalapana for the sound of drums and chanting

which they say can be heard from it on certain nights" [Hudson n.d.: 420-421].

Hudson also indicates the presence of traces of platforms a few feet inland of Kikoa heiau, which he states were:

"...apparently of hard-packed earth surrounded by a border of smooth sea boulders sunk flush with the level of the ground. Only a few lines of boulders, imbedded in the ground, can still be traced" [Ibid: 422].

Theodore Kelsey and Henry E. P. Kekahuna visited Kikoa heiau in 1952 and reported on their visit in the Honolulu Advertiser of March 2 of that year. Their description of the site differs from that of Hudson:

"This temple, slightly elevated by a base of pahoehoe lava, is 70 feet long by 68 wide. Its main walls, or those of the central structure, are 6 feet high, more or less, on three sides, but on the north the rear part of the heiau slopes down and outward to a height of but about 2 feet. From here a short walkway leads to a shallow spring 12 feet in diameter, lined with heavy stones. The main floor, largely occupied by a low rock platform, was originally paved with large rocks, and is level with the tops of the principal walls. On the east and west sides lie flanking paved areas 3 feet lower than the central portion...Kikoa's principal function is said to have been the replenishment of the shores with fish through prayers and ceremonies (hooulu i'a, cause increase of fish). The visits of schools of certain kinds of fish that remained in the vicinity for some time (i'a ku) were made known to fishermen and the people by the flying of various kinds of signal-kites" [Kekahuna and Kelsey 1952].

Kelsey and Kekahuna also mention the former presence, immediately adjacent to the heiau, of a fishpond which also went by the name of Kikoa. By the time of their visit, siltation and tidal wave debris had filled it in and converted it into a marshy pasture. They make reference to an old canoe landing to the southeast of the fishpond, as well as to a large rock in the water:

"In the sea to the right of the channel entered by canoes may be seen the large rock of Pohakau, known to old-timers as a kupua, or demi-god, turned to stone by vengeful Pele, terrible goddess of Volcano Fires" [Ibid].

Ching, Stauder and Palama [1974] conducted an archaeological surface survey of the proposed Kalapana-Kaimu Beach Park approximately three-fourths of a mile to the east of our survey area. They recorded three habitation structures, five agricultural areas, four trails, two religious structures, six walls, two cisterns, one platform, and two enclosures.

Barrera [1975] and Barrera and Barrère [1971] conducted archaeological and ethnohistorical investigations in the seaward portion of the ahupua'a of Kupahua, to the west of the Kalapana survey area. Nearly 1,000 mounds, numerous house sites and a heiau were recorded.

A list of historical sites compiled by Violet Hansen in 1967 includes Kikoa Heiau and the canoe landing. She reports that at that time the latter site was gradually being destroyed by high seas.

The State of Hawaii Tax Map for the Third Division, Zone 1, Section 2, Plat 03 indicates almost the entire western portion of Kalapana Bay as an ancient canoe landing site.

B. Leleiwi Point

Hudson's 1932 manuscript, while not indicating the presence of sites within the present project area itself, does mention remains in the vicinity:

"...in the region east of Hilo toward Leleiwi Point there are numerous sites still sufficiently well preserved to be measured and described" [Hudson n.d.: 226].

"Indistinct traces of old stone work in and around the pandanus grove on the tip of Leleiwi Point. The site probably covered an area about 50 feet square. No stones now remain in place except one line 11 feet long of large beach boulders embedded in sand. This course of stones presumably marked part of one side of a terrace or platform. Many other heavy boulders are scattered about

without giving any indication of their original position. The whole area is thickly strewn with opihi shells. Stokes, in a brief note added to a photograph on file in the Bishop Museum, mentions the existence of an alleged former heiau at this site" [Ibid: 272].

III. RESEARCH METHODOLOGY

A. Kalapana

The primary archaeological objective was to locate Kikoa Heiau and determine the impact of recent coastal subsidence on the integrity of the structure. Our attempt to follow the directions of Kekahuna and Kelsey [1952] was impeded by thick vegetation and by the fact that subsidence had so altered the coastline that their directions could not be readily followed. Kikoa Fishpond and the canoe landing site were also inspected, and a brief search for additional archaeological remains was conducted. The Painted Church was investigated both through a literature search and informant interviews. Long-time residents of the area were also interviewed for whatever information they might have concerning the history of the area in general. The interviews and literature searches were conducted by Ms. Terrilee Kekoolani.

B. Leleiwi

The project area was searched for surface indications of archaeological or historical sites, and informant interviews were again conducted by Ms. Kekoolani.

IV. SURVEY RESULTS

A. KALAPANA

[Figure 2]

Kikoa Heiau [Figures 3 and 4] is completely overgrown with dense vegetation and appears to have suffered somewhat from seismic activity, both factors making observations difficult. The walls are collapsing, and a shallow pool resulting from the recent subsidence approaches to within five feet of the structure. The description provided by Kekahuna and Kelsey is more accurate than that of Hudson, and the discrepancy between the two is so great as to suggest that Hudson was describing another site altogether.

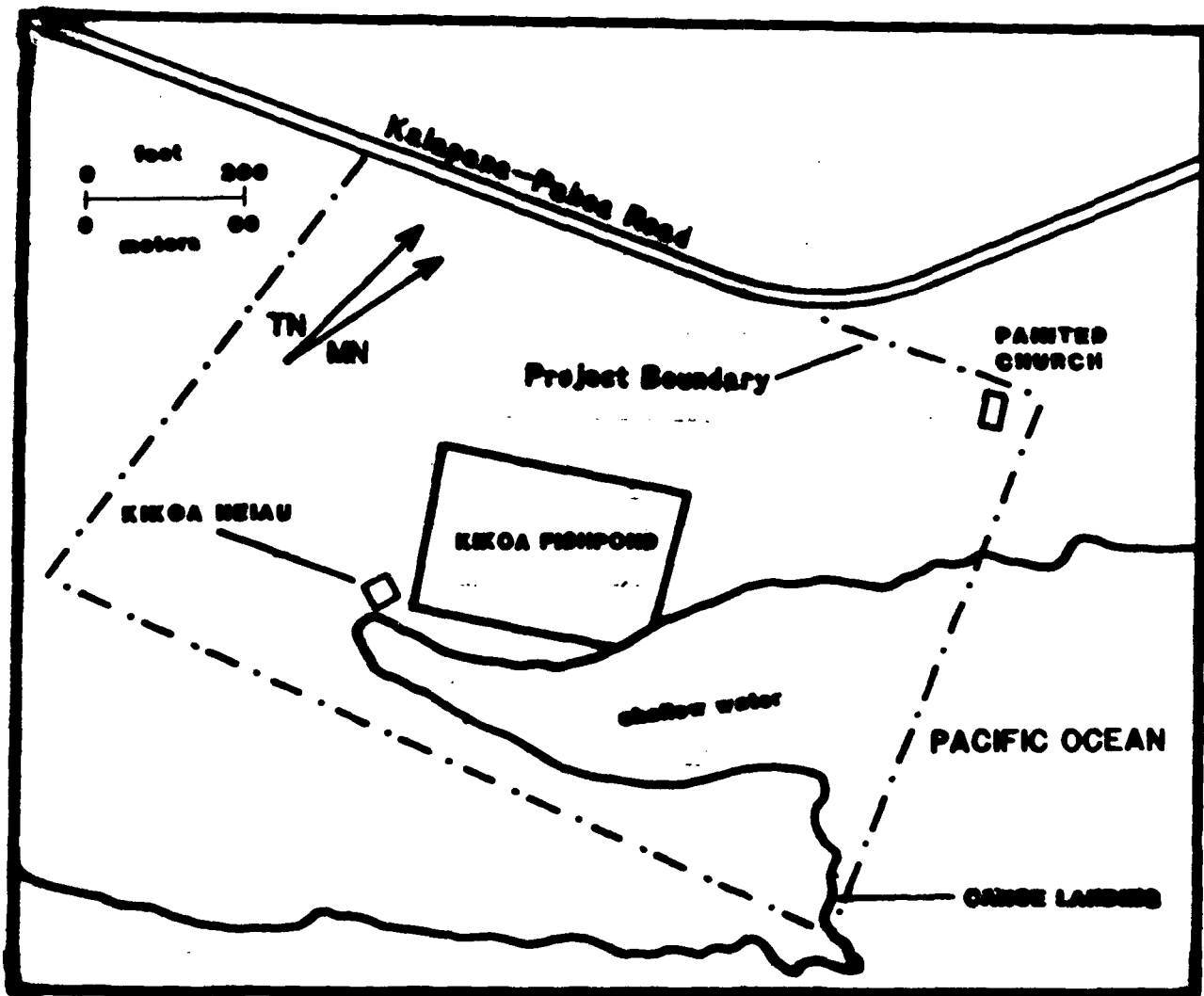


Figure 2. Map of the Kalapana Survey Area.



Figure 4. Location of Kikoa Heiau, looking West.
[behind palm grove at center of picture]

The vague platforms which Hudson mentioned as being inland of the heiau could not be located.

Kikoa Fishpond is a rectangular structure clearly visible in aerial photographs. It is completely silted in and covered with a thick growth of low guava [*Psidium guajava*] trees and an unidentified grass, and is bordered on three sides by a grove of palm (*Cocos nucifera*) trees. It originally measured about 75 by 106 meters [250 by 350 feet], but the subsidence of November 1975 has submerged a portion of the southeast corner. This feature is unusual in that it is an ocean pond completely enclosed by stone walls, a type which was not included in the typology devised by Apple and Kikuchi [1975].

The canoe landing site appears to have completely disappeared since Hansen's 1967 report of its continuing deterioration from the effects of high seas. Although no documentation could be found concerning the site, an informational sign near the site describes how the Hawaiians had constructed a ramp and ladder arrangement of poles over which canoes were carried during launching and landing.

The Star of the Sea Church, which is also referred to as Kalapana Painted Church and Puna Painted Church [Figure 5] was constructed in 1929 by Father Evarist Gielen, who in 1931 and



Figure 5. The Painted Church at Kalapana.
[Nancy Bannick photo]

1932 painted the murals. Father Evarist subsequently moved on to other churches in which he also executed paintings, but Kalapana was apparently his best effort:

"The masterpiece of Father Evarist...is his first effort, the church called Star of the Sea at Kalapana. This is as notable an achievement as Father John's Church at Honaunau, and it is difficult to understand why it has been totally ignored.

"At Kalapana, as at Honaunau, one is deeply impressed with the totality of the structure, its telling relationship of painting and architecture, and the clarity of the entire concept" [Frankenstein 1961: 27-8].

Mrs. Mary Kahilihiwa, a Kalapana resident and kupuna in her late seventies, provided information concerning a pohaku [rock] situated somewhere offshore near the curve of the canoe landing [this is not the kupua mentioned by Kekahuna and Kelsey]. She states that it was used by paddlers to mark a proper entry into the landing, but Mrs. Kahilihiwa's feelings about this feature suggest that it has considerably more significance, for as she says, "If the pohaku goes, Kalapana goes." Mrs.

Kahilihiwa also takes exception to a reference in the Kekahuna and Kelsey newspaper article that the flying of kites took place at Kikoa Heiau, for today it is held among Hawaiians that kite flying of any form "...is a sign that starvation will come to the land."

B. Leleiwi

[Figure 6]

The entire project area is surrounded by a thick grove of hau (Hibiscus tiliaceus), which is virtually absent in the survey area itself. This strongly suggests that the area has been cleared, and the chewed-up appearance of the ground indicates that this was probably done with heavy equipment. A large boulder beach is testimony to the power of the surf, as is the presence of thick deposits of mixed coral and lava sand. Thus high seas and ground clearing could have obliterated any surface evidence of former structures. The presence of a few shells of types of mollusks commonly eaten by prehistoric Hawaiians [Cypraea caputserpentis and Nerita picea] constitute one of two tenuous suggestions that the area may have been utilized in aboriginal times. The second suggestion is the fact that immediately outside of the survey area on the southwest there is a collapsed lava bubble shelter, a favorite type of Hawaiian habitation location. It is almost entirely filled up with sand, and there is therefore a possibility that completely buried features of the same type [which may contain midden materials] are located within the survey area.

Interviews with Hawaii residents familiar with Leleiwi Point produced valuable information. Mr. and Mrs. Robert Napeahi, both in their early seventies, are Keaukaha home-steaders who were born and raised in the area. They stated that the fishing grounds to the east and west of Leleiwi Point [the name translates as "flying bones"] are sacred and kapu to the Hawaiians. The kapu states that fish can be taken, but only in quantities sufficient for immediate needs; none must be taken for sale. They told of some Hawaiians who commercially harvested opihi on the east side of the point, one of whom subsequently drowned.

The Napeahis remember when non-resident Hawaiians set up fishing shacks and grew watermelons, sweet potatoes and other vegetables in the sand near the point. Present-day uses of the area are primarily net and spear fishing and the picking of opihi and seaweed. They also say that Hawaiians consider the large boulders along the Lehia Park coastline to have been brought in by high seas in order to protect the area.

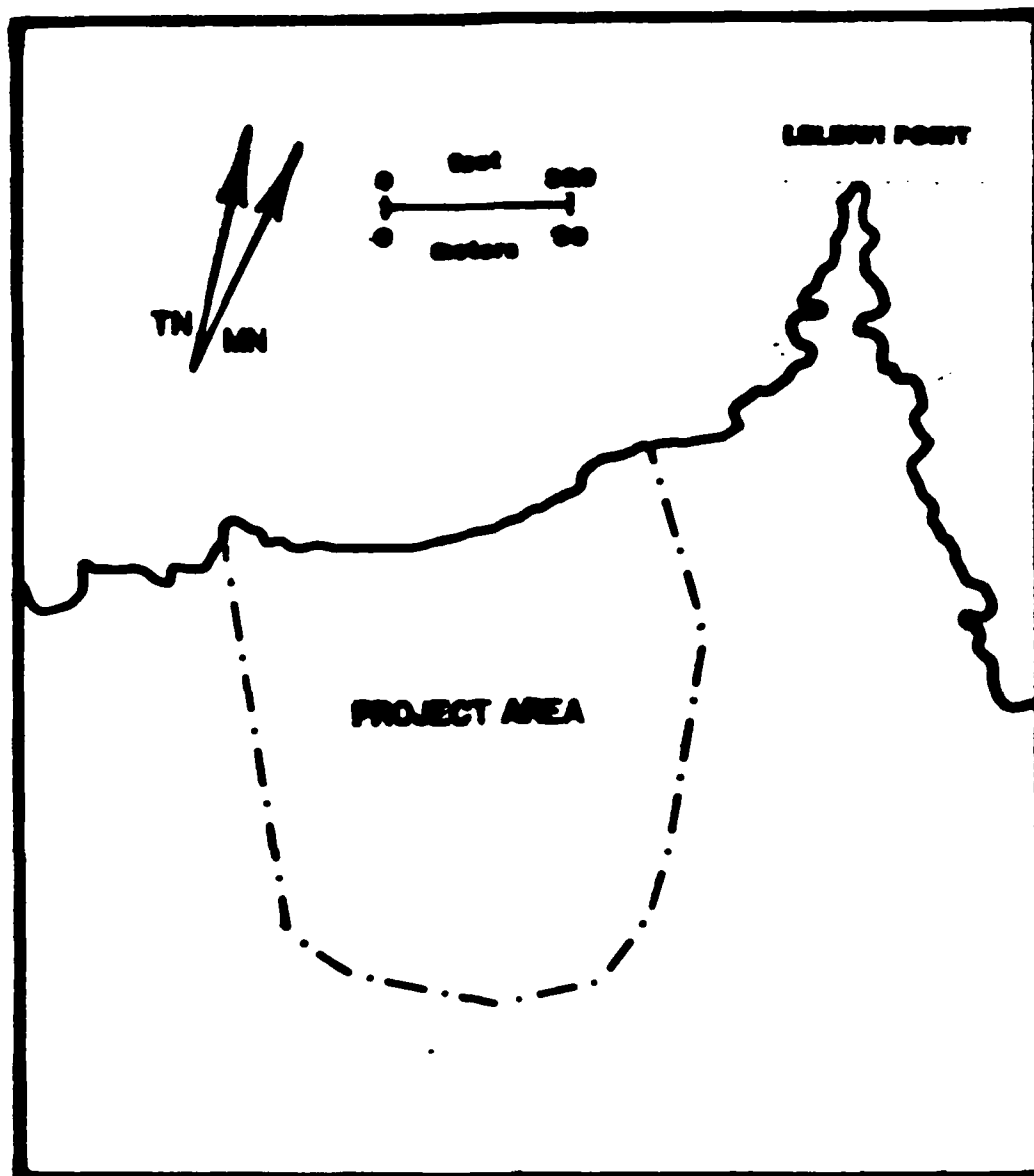


Figure 6. Map of the Leleiwi Point Survey Area.

Puumaile Home, a tuberculosis facility, was constructed in the vicinity in 1939, but was destroyed by high seas in 1947 and never rebuilt. Mrs. Napeahi states that a concrete seawall was broken by high surf and carried into the hospital.

Mr. Napeahi remembers a stone wall near Leleiwi Point that was part of a heiau, and that it was situated adjacent to a military pillbox. This may be the heiau mentioned by Stokes and Hudson.

V. CONCLUSIONS AND RECOMMENDATIONS

A. KALAPANA

Kikoa Heiau, Kikoa Fishpond and Star of the Sea Painted Church are all eligible to the National Register of Historic Places. The heiau and the fishpond are eligible on the basis of the potential they have for providing information concerning the prehistory of Puna District. According to historical architect Spencer Leineweber of Spencer Ltd. [personal communication], the church is eligible primarily because of its combination of architectural and artistic values. It is somewhat tenuously eligible because it has a link with Father Damien as the successor to his church at Kupaahu.

It is therefore strongly recommended that Kalapana be removed from consideration as an alternative location for a small boat harbor.

B. Leleiwai

The fact that there is a lack of surface remains is insufficient grounds for a determination of no effect at this site. The possibility of the presence of both lava bubbles and sub-surface midden materials buried beneath the sand makes it imperative that either a sub-surface test pit survey of the property be conducted prior to construction or that a qualified archaeologist be retained to monitor activities during construction. If the latter alternative were chosen, it would have to be with the understanding that such construction activities must cease should sub-surface archaeological materials be uncovered.

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